

**CLAIMS**

1. A method for determining the dosage of a taxoid to administer to a patient who is being treated for cancer and whose body fluids include alpha-1-acid 5 glycoprotein comprising: (A) observing the patient's level of alpha-1-acid glycoprotein; (B) evaluating said level to determine the dosage of the taxoid to administer to the patient by comparing said level to a predetermined alpha-1- acid glycoprotein level derived from a population of patients 10 having said cancer and treated with said taxoid at a common dosage; and (C) based on said evaluation, recommending the dosage of the taxoid to administer to the patient.

2. The method of claim 1 wherein said taxoid is selected from the group consisting of docetaxel and 15 paclitaxel.

3. The method of claim 1 wherein said cancer is selected from the group consisting of breast, ovarian, lung, head and neck, gastric, pancreatic, melanomas, and soft tissue sarcomas.

20 4. The method of claim 3 wherein said cancer is non-small cell lung cancer.

5. The method of claim 1 wherein said cancer is non-small cell lung cancer and said taxoid is docetaxel.

6. A method for assessing the effect of treatment 25 of a patient who has cancer and who is being treated with a taxoid comprising: (A) observing the patient's alpha-1-acid glycoprotein level; (B) comparing said level to a predetermined alpha-1-acid glycoprotein level derived from a

population of patients having said cancer and treated with said taxoid at a common dosage; and (C) based on said comparison, assessing the effect of continued treatment of the patient with respect to the patient's response to

5 treatment, the length of survival of the patient, or side effects that may be experienced by the patient.

7. The method of claim 6 wherein said taxoid is selected from the group consisting of docetaxel and  
10 paclitaxel.

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8. The method of claim 6 wherein said cancer is selected from the group consisting of breast, ovarian, lung, head and neck, gastric, pancreatic, melanomas, and soft tissue sarcomas.

15 9. The method of claim 8 wherein said cancer is non-small cell lung cancer.

10. The method of claim 6 wherein said cancer is non-small cell lung cancer and said taxoid is docetaxel.

11. The method of claim 6 wherein said patient is  
20 being treated with a dosage of about 55 to about 200 mg/m<sup>2</sup> of taxoid.

12. The method of claim 6 wherein said patient is being treated with about 55 to about 125 mg/m<sup>2</sup> docetaxel.

13. The method of claim 6 wherein said patient is  
25 being treated with about 135 to about 175 mg/m<sup>2</sup> paclitaxel.

14. A method for reducing the side effects experienced by a patient who has cancer and who is to be treated with a taxoid comprising: (A) observing the patient's 5 alpha-1-acid glycoprotein (AAG) level; (B) comparing said level to a predetermined alpha-1-acid glycoprotein level derived from a population of patients having said cancer and treated with said taxoid at a common dosage; and (C) based on said comparison recommending the dosage of said taxoid to 10 administer to said patient to reduce the incidence or severity of side effects that the patient may experience during treatment with said taxoid.

15. The method of claim 14 wherein said taxoid is selected from the group consisting of docetaxel and 15 paclitaxel.

16. The method of claim 14 wherein said cancer is selected from the group consisting of breast, ovarian, lung, head and neck, gastric, pancreatic, melanomas, and soft tissue sarcomas.

20 17. The method of claim 16 wherein said cancer is non-small cell lung cancer.

18. The method of claim 14 wherein said cancer is non-small cell lung cancer and said taxoid is docetaxel.

25 19. The method of claim 14 wherein said population of patients is being treated with a dosage of about 55 to about 200 mg/m<sup>2</sup> of said taxoid.

20. The method of claim 14 wherein said patient is being treated with about 55 to about 125 mg/m<sup>2</sup> of docetaxel.

21. The method of claim 14 wherein said patient is being treated with about 135 to about 175 mg/m<sup>2</sup> paclitaxel.

5 22. The method of claim 14 wherein the side effects are selected from the group consisting of neutropenia, infection, diarrhea, infusion-related hypersensitivity reactions, alopecia, neurotoxicity, mucositis, stomatitis, severe asthenia, fluid retention and  
10 myalgias.

23. The method of claim 22 wherein said side effect is neutropenia.

24. The method of claim 23 wherein said neutropenia is febrile neutropenia.

15 25. The method of claim 14 wherein said taxoid is docetaxel and said dosage is recommended to be less than about 100 mg/m<sup>2</sup>.

26. The method of claim 14 wherein said taxoid is paclitaxel and said dosage is recommended to be less than  
20 about 175 mg/m<sup>2</sup>.

27. The method of claim 14 wherein the recommended dosage is about 5 to about 35% below said common dosage.

28. The method of claim 14 wherein the recommended dosage is reduced by about 10 to about 30% below said common dosage.

29. The method of claim 14 wherein the recommended dosage is reduced to about 15 to about 27% below said common dosage.

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